

ORIGINAL ~~183~~ BOOK OF THE "FISH HAWK"

UNITED STATES FISH COMMISSION

72.1903 STATION NUMBERS

Numbers 7446 to 7495

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7446

Date, Jan. 30, 1903

Time of day, 10:30 A.M.; of tide, $\frac{1}{2}$ ebb

Locality, Lower Jewfish Bush Lake, Fla.

Exact position, $2\frac{3}{4}$ mi. N.W. of Jewfish Bush

Depth, 8 feet

Nature of bottom, barry

Dredging instrument used, Small snape dredge

Direction of drift, East; distance, $\frac{1}{2}$ mi

Temperature of air, 76 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0221 temp., 24

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 7450

Barometer reading, 29.92

State of sky, Clear

Direction of wind, N.N.E.; force, 3

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith
Boatswain, U.S.N.

Name and position of observer,

Vernon C. West.

NOTES RELATING TO STATION NO. 2446

2 species fish

1 mollusk

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7447

Date, Jan. 30, 1903

Time of day, 11:05 A. M.; of tide, $\frac{3}{4}$ ebb.

Locality, Lower Jewfish Bush Lake, Fla.

Exact position, $2\frac{3}{4}$ mi. N. W. of West
end of Lower Matecumbe Key

Depth, $8\frac{1}{2}$ feet

Nature of bottom, Soft mud over rocks

Dredging instrument used, Small scrape dredge

Direction of drift, S. E. ; distance, $\frac{1}{2}$ mile

Temperature of air, 76 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0221 temp., 24.5

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 7450

Barometer reading, 29.91

State of sky, Clear

Direction of wind, N. N. E.; force, 2

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith
Boatswain, U. S. N.

Name and position of observer,

Vernon E. West.

NOTES RELATING TO STATION NO. 2492

Nothing in dredge

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7448

Date, Jan. 30, 1903

Time of day, 11:35 A.M.; of tide, $\frac{3}{4}$ ebb.

Locality Lower Jewfish Bush Lake, Fla.

Exact position, 1 mi. S. x W. of Southern

Little Peters Keys

Depth, 8 feet

Nature of bottom, hard

Dredging instrument used, Small scrape dredge

Direction of drift, East; distance, $\frac{1}{6}$ mi.

Temperature of air, 76 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0224 temp., 24.5

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 7450

Barometer reading, 29.91

State of sky, Clear

Direction of wind, N. N. E.; force, 2

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith

Boatswain, U. S. N.

Name and position of observer,

Vernon C. West.

NOTES RELATING TO STATION NO. 2448

2 shufs wool sponges

2 yellow sponges

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7449

Date, Jan. 30, 1913

Time of day, 1:35 P.M.; of tide, Low Water

Locality, Lower Jewfish Bush Lake, Fla.

Exact position, 1 mi. N. E. x E. of Jewfish Bush

Depth, 10 feet

Nature of bottom, bay

Dredging instrument used, Small scrape dredge

Direction of drift, S. W. ; distance, 1/6 mi.

Temperature of air, 78 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0220 temp., 25

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 7450

Barometer reading, 29.96

State of sky, Clear

Direction of wind, N. N. E.; force, 2

Rain,

Direction of surface current, \ ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith
Boatswain, U. S. N.Name and position of observer,
Vernon C. West.

NOTES RELATING TO STATION NO. 7449

2 commercial sponges
nabs

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7450

Date, Jan. 30, 1903

Time of day, 2:05 P. M.; of tide, Low Water

Locality, Lower Jewfish Bush Lake, Fla.

Exact position, 1 mi. N. W. x N. of Jewfish Bush.

Depth, 8 feet

Nature of bottom, barry

Dredging instrument used, small scrape dredge

Direction of drift, West ; distance, 1/2 mi.

Temperature of air, 77

therm. No.,

" of surface water,

"

" at depth of fathoms,

"

" at bottom,

"

Density at surface, 1.0224

temp., 25

" at depth of fathoms,

"

" at bottom,

"

Number of salinometer, 7450

Barometer reading, 29.98

State of sky, Clear

Direction of wind, N. W. ; force, 3

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commissioner

Name and rank of commanding officer, James A. Smith
Boatswain, U. S. N.

Name and position of observer,

Vernon C. West.

NOTES RELATING TO STATION NO. 2500

2 species of finger sponges

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 7451

Date, Feb. 4 1903

Time of day, 8:55 A.M.; of tide, $\frac{3}{4}$ ebb

Locality, Lignum Vitae Lake, Fla.

Exact position, $1\frac{1}{4}$ mi. N. $\frac{1}{2}$ W. of Northern

end of Lignum Vitae Bay

Depth, 8 feet

Nature of bottom, sandy

Dredging instrument used, small surf dredge

Direction of drift, North; distance, $\frac{1}{2}$ mi.

Temperature of air, 66 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0232 temp., 24.5

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 7450

Barometer reading, 29.84

State of sky, Partly cloudy

Direction of wind, South; force, 4

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James B. Smith

Boatswain, U. S. N.

Name and position of observer,

Vernon C. West

NOTES RELATING TO STATION NO. 2756

1. wet

wood

fine sand shells

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 7452

Date, Feb 4 1903

Time of day, 9:25 A.M.; of tide, $\frac{3}{4}$ ebb

Locality, Lignum vitae Lake, Fla.

Exact position, $1\frac{1}{2}$ mi. S. S. W. $\frac{1}{2}$ W. of the
Southern Twin Key.

Depth, 8 feet

Nature of bottom, *fine sand*

Dredging instrument used, Small seine dredge

Direction of drift, N. W. ; distance, $\frac{1}{4}$ mi.

Temperature of air, 76 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0226 temp., 24.5

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 7450

Barometer reading, 29.85

State of sky, Partly cloudy

Direction of wind, South ; force, 4

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith
Boulton, U. S. N.

Name and position of observer,

Vernon C. West.

NOTES RELATING TO STATION NO. 1952

*200 yds
level in measurement of length
truncated*

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 7453

Date, Feb. 4, 1903.

Time of day, 10:30 A. M.; of tide, Low water

Locality, Barnes Lake, Fla.

Exact position, $1\frac{1}{2}$ mi. N. N. W. of Barnes Key.

Depth, 2 feet

Nature of bottom, barry

Dredging instrument used, small scrape dredge

Direction of drift, N. W. ; distance, $\frac{1}{4}$ mi.

Temperature of air, 77 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0229 temp., 25

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 7456

Barometer reading, 29.86

State of sky, Clear

Direction of wind, South ; force, 4

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith
Boatsman U. S. N.

Name and position of observer,

Vernon E. West.

NOTES RELATING TO STATION NO. 7162

Water
gorgonian
herm. corals & sponges

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *7451*
 Date, *Feb. 4, 1912*
 Time of day, *11:05 A.M.*; of tide, *Low water*
 Locality, *Barnes Lake, Fla.*
 Exact position, *1 $\frac{3}{4}$ mi. N N. E. $\frac{1}{2}$ E. of*
Little Rabbit Key.
 Depth, *6 feet*
 Nature of bottom, *sand & grass*
 Dredging instrument used, *Small seine dredge*
 Direction of drift, *N. N. W.*; distance, *$\frac{1}{2}$ mi.*
 Temperature of air, *78* therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, *1.0225* temp., *25.5*
 " at depth of fathoms, "
 " at bottom, "
 Number of salinometer, *7950*
 Barometer reading, *29.87*
 State of sky, *Clear*
 Direction of wind, *South*; force, *3*
 Rain,
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, *Fish Hawk*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *James A. Smith*
Boatman, U. S. N.
 Name and position of observer,
Wm. C. West.

NOTES RELATING TO STATION NO. 7257

exp. no. of road
small fish
y. m.

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 7455-
 Date, Feb. 4, 1903
 Time of day, 11:40 A.M.; of tide, Low water
 Locality, Barnes Lake, Fla.
 Exact position, $1\frac{3}{4}$ mi. N. W. R.R. of
 North Lake Bay
 Depth, 7 feet
 Nature of bottom, sand & grass
 Dredging instrument used, small scrape dredge
 Direction of drift, S. S. E. ; distance, $\frac{1}{2}$ mi
 Temperature of air, 78 therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, 1.0234 temp., 25-
 " at depth of fathoms, "
 " at bottom, "
 Number of salinometer, 7450
 Barometer reading, 29.87
 State of sky, Clear
 Direction of wind, South ; force, 3
 Rain,
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, James A. Smith
 Boatswain, U. S. N.
 Name and position of observer,
 Vernon C. West

NOTES RELATING TO STATION NO. 2255

see above

2 small sponges

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7456
 Date, Feb. 4, 1903
 Time of day, 1:50 P. M.; of tide, $\frac{1}{4}$ flood
 Locality, Saginaw Water Lake, Is.
 Exact position, $1\frac{1}{4}$ mi. E. S. E. of Eagle
 Nest Key
 Depth, $4\frac{1}{2}$ feet.
 Nature of bottom, sand & grass.
 Dredging instrument used, small scrape dredge.
 Direction of drift, N. E. ; distance, $\frac{1}{6}$ mi.
 Temperature of air, 79 therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, 1.0222 temp., 25
 " at depth of fathoms, "
 " at bottom, "
 Number of salinometer, 7456
 Barometer reading, 29.85
 State of sky, Partly cloudy
 Direction of wind, South ; force, 3
 Rain,
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, James H. Small
 Boatswain, U. S. N.
 Name and position of observer,
 Vernon E. West.

NOTES RELATING TO STATION NO. 7824

Nothing seen

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7457
 Date, Feb. 4., 1903
 Time of day, 2:15 P.M.; of tide, $\frac{1}{4}$ flood.
 Locality, *Liguan Yuen Bay, S. C.*
 Exact position, $2\frac{3}{4}$ mi. N. N. W. of Shell
Key
 Depth, 9 feet.
 Nature of bottom, *barry*
 Dredging instrument used, *Small scrape dredge*
 Direction of drift, *S. W.* : distance, $\frac{1}{4}$ mi.
 Temperature of air. 78 therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, 1.0217 temp., 25
 " at depth of fathoms, "
 " at bottom, "
 Number of salinometer. 7450
 Barometer reading, 29.85
 State of sky, *Partly cloudy*
 Direction of wind, *South*; force, 3
 Rain,
 Direction of surface current, : force,
 " of bottom " : force,
 Name of vessel, *Fish Hawk*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *James A. Smith*
Boatswain, U. S. N.
 Name and position of observer,
Vernon E. Weston

NOTES RELATING TO STATION NO. 7222

Small stream

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7458.

Date, June 1903

Time of day, 8:35 A. M.; of tide, Low water.

Locality, Cotton Key Lake Fla.

Exact position, 1 1/2 mi. N. E. of Shell Key

Depth, 8 feet

Nature of bottom, mud

Dredging instrument used, Small dredge

Direction of drift, N. E. ; distance, 1/2 mi.

Temperature of air, 77 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0229 temp., 25

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 79

Barometer reading, 29.93

State of sky, Partly clear

Direction of wind, S. S. W. ; force, 2

Rain,

Direction of surface current, : force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith

Master of vessel

Name and position of observer,

Wm. B. Smith

NOTES RELATING TO STATION NO. 287

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7459

Date, Feb. 5, 1905

Time of day, 9:00 A. M.; of tide, Low water

Locality, Cotton Key, Fla.

Exact position, 1 mi. S.E. 1/2 of West

Key

Depth, 5 1/2 fathoms

Nature of bottom, Sand

Dredging instrument used, Small dredge

Direction of drift, North ; distance, 1/2 mi.

Temperature of air, 77

therm. No.,

" of surface water,

..

" at depth of fathoms,

..

" at bottom,

..

Density at surface, 1.0228

temp., 25

" at depth of fathoms,

..

" at bottom,

..

Number of salinometer, 7910

Barometer reading, 29.95

State of sky, Partly clear

Direction of wind, S. S. W. ; force, 2

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, U. S. Fish Commission

Name and rank of commanding officer, J. A. B. Smith, U. S. N.

Robertson, U. S. N.

Name and position of observer,

James E. Smith

NOTES RELATING TO STATION NO. 777

1. 1/2 lb.
1. 1/2 lb.
2 small pipe fish
1 large white sponge
1 yellow sponge
1 small green sponge
2 small red
1 green sponge

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7863

Date, Feb. 5, 1903

Time of day, 9:45 A.M.; of tide, $\frac{1}{4}$ flood

Locality, Cotton Bay - San Francisco

Exact position, $\frac{1}{2}$ mi. S. E. of C. & G. of

Cotton Bay

Depth, 5 fms

Nature of bottom, sandy

Dredging instrument used, small scrape dredge

Direction of drift, N. E. ; distance, 1/2 mi

Temperature of air, 77 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0210 temp.,

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 7950

Barometer reading, 29.95

State of sky, Cloudy

Direction of wind, S. S. W. ; force, 2

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, U.S. Fish Com.

Service to which attached, U.S. Fish Com.

Name and rank of commanding officer, James A. Smith

Boatman, S. H.

Name and position of observer,

Vernon C. Went.

NOTES RELATING TO STATION NO. 250

1. 1000 ft. deep
2. 1000 ft. deep
3. 1000 ft. deep

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. *2421*
 Date, *Feb. 5, 1883*
 Time of day, *10:15 A.M.*; of tide, *1/4 flood*
 Locality, *Cotton Key Lake, Fla.*
 Exact position, *27 mi. E. & S. E. of East Key.*
 Depth, *7 feet*
 Nature of bottom, *Sand & rock.*
 Dredging instrument used, *small scrape dredge*
 Direction of drift, *East*; distance, *1/2 mi.*
 Temperature of air, *78* therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, *1.0210* temp., *25*
 " at depth of fathoms, "
 " at bottom, "
 Number of salinometer, *77-5*
 Barometer reading, *29.97*
 State of sky, *Cloudy*
 Direction of wind, *S. S. W.*; force, *2*
 Rain,
 * Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, *Fish Hawk*
 Service to which attached, *U.S. Commission*
 Name and rank of commanding officer, *James S. Smith*
Boatwain, U.S.N.
 Name and position of observer, *Wm. E. West*

NOTES RELATING TO STATION NO. 200

July 1900

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *7462*
 Date, *Feb. 18.*
 Time of day, *2:20 P.M.*; of tide, $\frac{1}{2}$ *ebb.*
 Locality, *Hawk Channel, Fla.*
 Exact position, *2 mi. S. W. x W. of S. E.*
point of Long Key
 Depth, *2 $\frac{1}{2}$ fathoms*
 Nature of bottom, *Hard sand & grass.*
 Dredging instrument used, *Oyster dredge*
 Direction of drift, *S. W.*; distance, $\frac{1}{4}$ *mi.*
 Temperature of air, *62* therm. No.,
 " of surface water, ..
 " at depth of fathoms, ..
 " at bottom, ..
 Density at surface, *1.0249* temp., *20.5*
 " at depth of fathoms, ..
 " at bottom, ..
 Number of salinometer, *7956*
 Barometer reading, *30.17*
 State of sky, *Cloudy*
 Direction of wind, *N. N. E.*; force, *5*
 Rain,
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, *Fish Hawk*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *Boatswain*
 Name and position of observer, *James L. Wolfe*

NOTES RELATING TO STATION NO. 7112

gastropods
sea urchins
1 file fish
1 sponge

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 7463

Date, Feb 18, 1903

Time of day, 2:40 P. M.; of tide, $\frac{1}{2}$ ebb.

Locality, Hawk Channel, Fla.

Exact position, $1\frac{1}{4}$ mi. S. x W. of S. E.

point of Long Key.

Depth, $2\frac{1}{2}$ fathoms

Nature of bottom, Sand

Dredging instrument used, Oyster dredge

Direction of drift, S. W.; distance, $\frac{1}{4}$ mi.

Temperature of air, 62 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0249 temp., 21

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 7450

Barometer reading, 30.17

State of sky, Cloudy

Direction of wind, N. N. E.; force, 5

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, J. B. Smith

Bureau of Fishery

Name and position of observer,

Vernon E. Weston

NOTES RELATING TO STATION NO. 7743

9 or 10 m. in
2 species of shrimp
several non-commercial sponges
astrophidion-like sponges
7 large sand dollars
several small crabs

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 7464

Date, Feb. 18, 1903

Time of day, 3:35 P.M.; of tide, $\frac{3}{4}$ ebb.

Locality, Hawk Channel

Exact position, 1 1/2 mi. E. x S. of West end of Lower Matecumbe Key

Depth, 3 fathoms

Nature of bottom, bay

Dredging instrument used, Oyster dredge

Direction of drift, S. W. ; distance, 1/4 mi.

Temperature of air, 65 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0254 temp., 20.5

" at depth of fathoms, "

" at bottom, 1.0250 " 20.5

Number of salinometer, 7450

Barometer reading, 30.12

State of sky, Cloudy

Direction of wind, N. E. ; force, 5

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith
Boatswain, U. S. N.

Name and position of observer,

Vernon E. West

NOTES RELATING TO STATION NO. 7424

a column

gorgonian

gastropods

crabs

several varieties of sponges

1 small fish

1 asteropodid

1 shrimp

coral

bivalves

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 7465

Date, Feb. 18, 1903

Time of day, 4:05 P.M.; of tide, $\frac{3}{4}$ ebb.

Locality, Hawk Channel

Exact position, $1\frac{1}{2}$ mi. S. S. W. $\frac{1}{2}$ M. of

Indian Bay

Depth, $2\frac{1}{2}$ fathoms

Nature of bottom, Hard sand with shells

Dredging instrument used, Oyster dredge

Direction of drift, West; distance, $\frac{1}{4}$ mi.

Temperature of air, 65, therm. No.,

" of surface water, ..

" at depth of fathoms, ..

" at bottom, ..

Density at surface, 1.0252, temp., 19.5

" at depth of fathoms, ..

" at bottom, ..

Number of salinometer, 7450

Barometer reading, 30.12

State of sky, Cloudy

Direction of wind, N. E.; force, 5

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith
Boatwain U. S. N.

Name and position of observer,

Vernon C. West

NOTES RELATING TO STATION NO. 2465

3 small fish

1 large star fish

several sand dollars

crabs

gastropods

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7466

Date, Feb. 19, 1903

Time of day, 8:50 A. M.; of tide, $\frac{1}{2}$ flood

Locality, Hawk Channel, Fla.

Exact position, $1\frac{1}{4}$ mi. E. of Tea Table Key.

Depth, $2\frac{1}{2}$ fathoms

Nature of bottom, bay

Dredging instrument used, Oyster dredge

Direction of drift, S. W.; distance, $\frac{1}{2}$ mi.

Temperature of air, 61 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0250 temp., 20.5

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 7450

Barometer reading, 30.20

State of sky, Cloudy

Direction of wind, North; force, 4

Rain,

Direction of surface current, : force,

" of bottom " : force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith
Boatswain, U. S. N.

Name and position of observer,

Vernon C. West.

NOTES RELATING TO STATION NO. 2926

1 glass sponge
1 finger sponge
several sand dollars
several sea urchins
several small crabs
1 small fish
bivalves
gastropods
Holothurians
several little crabs

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7467
 Date, Feb. 19, 1905
 Time of day, 12:30 P.M.; of tide, High Water
 Locality, Grecian Shoals, Hawk Channel, Fla.
 Exact position, $4\frac{1}{4}$ mi. W. of Albatross Reef Beacon
 Depth, $2\frac{3}{4}$ fathoms.
 Nature of bottom, fine coral with sand.
 Dredging instrument used, Oyster dredge
 Direction of drift, West; distance, $\frac{1}{4}$ mi.
 Temperature of air, 70 therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, 1.0253 temp., 20.5
 " at depth of fathoms, "
 " at bottom, "
 Number of salinometer, 7450
 Barometer reading, 30.23
 State of sky, Cloudy
 Direction of wind, N. E.; force, 5
 Rain,
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, James A. Smith
 Boatswain, U. S. N.
 Name and position of observer,
 Vernon C. West

NOTES RELATING TO STATION NO. 2467

3 species of fish
several species of crabs
several bivalves
gastropods
small starfish
worms

sea urchins
sand dollars
Holothurians

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. *7468*
 Date, *Feb. 19, 1903*
 Time of day, *1:00 P. M.*; of tide, *High Water*
 Locality, *Grecian Shoals, Hawk Channel Fla.*
 Exact position, *2 mi. S. S. W. from Beacon*
Kill Beacon
 Depth, *2 1/2 fathoms*
 Nature of bottom, *sand & grass*
 Dredging instrument used, *Oyster dredge*
 Direction of drift, *West*; distance, *1/2 mi.*
 Temperature of air, *70* therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, *1.0253* temp., *20.5*
 " at depth of fathoms, "
 " at bottom, "
 Number of salinometer, *7450*
 Barometer reading, *30.23*
 State of sky, *Cloudy*
 Direction of wind, *N. E.*; force, *5*
 Rain
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, *Fish Hawk*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *James A. Smith*
 Boatswain, U. S. N.
 Name and position of observer,
 Vernon C. West

NOTES RELATING TO STATION NO. 2418

small sponges

growth of rocks

breaks

some sea urchins & small shells

1 cm. all of the fish

small crabs

...

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7469

Date, Feb 19, 1882

Time of day, 1:20 P.M.: of tide, High Water

Locality, Grecian Shoals, Hawk Channel ^{near}

Exact position, 1/4 mi. S.W. x S. of Basin

Hill Beacon

Depth, 2 fathoms

Nature of bottom, sand & grass

Dredging instrument used, Oyster dredge

Direction of drift, West; distance, 1/8 mi.

Temperature of air, 69

therm. No.,

" of surface water,

"

" at depth of fathoms,

"

" at bottom,

"

Density at surface, 1.0250

temp., 20.5

" at depth of fathoms,

"

" at bottom,

"

Number of salinometer, 7450

Barometer reading, 30.20

State of sky, Cloudy

Direction of wind, N.E.; force, 5

Rain.

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James C. Smith

Boatsman, U.S.N.

Name and position of observer,

Vernon C. West.

NOTES RELATING TO STATION NO. 7418

sponges

brachiozoans

growth of oolite

several species of corals

3 m. antlers shrimp

1 small fish

1 worm

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7471

Date, Feb. 25, 1913

Time of day, 10:30 A. M. of tide, $\frac{3}{4}$ ebb

Locality, West Campers, Fla.

Exact position, $3\frac{1}{4}$ mi. N. W. of Pigeon

Depth, 7 ft.

Nature of bottom, soft mud

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, 70 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0209 temp., 21

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 7450

Barometer reading, 30.02

State of sky, Partly cloudy

Direction of wind, C. N. E. ; force, 4

Rain,

Direction of surface current, : force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James R.

Boatman U. S. N.

Name and position of observer,

Vernon C. West

NOTES RELATING TO STATION NO. 2876.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 7471

Date, Feb. 25, 1903

Time of day, 10:40 A.M.; of tide, $\frac{3}{4}$ ebb.

Locality, West Campers, Fla.

Exact position, 4 m. S.W. & N. $\frac{1}{2}$ W. of Pigeon Key.Depth, $7\frac{1}{2}$ ft.

Nature of bottom, soft mud

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, 70 therm. No.,

" of surface water, ..

" at depth of fathoms, ..

" at bottom, ..

Density at surface, 1.0210 temp., 21

" at depth of fathoms, ..

" at bottom, ..

Number of salinometer, 7450

Barometer reading, 30.12

State of sky, Partly cloudy

Direction of wind, E.N.E. ; force, 4

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith

Boatman, U. S. N.

Name and position of observer,

Vernon E. Mearns.

NOTES RELATING TO STATION NO. 23241

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 7472

Date, Feb 25 1913

Time of day, 11:00 A.M.; of tide, Low Water

Locality, East Croppers, Fla.

Exact position, 1 3/4 mi. S.W. x S. of Pigeon

Depth, 6 1/2 ft

Nature of bottom, soft mud

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, 71 therm. No.,

" of surface water,

" at depth of fathoms,

" at bottom,

Density at surface, 1.0192 temp., 21

" at depth of fathoms,

" at bottom,

Number of salinometer, 7049

Barometer reading, 30.02

State of sky, Partly cloudy

Direction of wind, E. N. E ; force, 3

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith

Boatwain, U. S. N.

Name and position of observer,

Wm. C. Heath

NOTES RELATING TO STATION NO. 2972

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 7473

Date, Feb. 25, 1903

Time of day, 11:20 A.M.; of tide, Low Water

Locality, Cash Company, Fla.

Exact position, 1/2 mi. S.W. of Pigeon Key

Depth, 7 ft.

Nature of bottom, soft mud

Dredging instrument used,

Direction of drift, ; distance,

Temperature of air, 71 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0202 temp., 21

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 7099

Barometer reading, 30.02

State of sky, Partly Cloudy

Direction of wind, E.N.E. ; force, 4

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith
Boatswain, U.S.N.

Name and position of observer,

Vernon E. Wright

NOTES RELATING TO STATION NO. 2923

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 7474

Date, March 6, 1907

Time of day, 9:15 A. M.; of tide, $\frac{1}{2}$ flood

Locality, Pensacola Bay, Fla.

Exact position, $\frac{3}{4}$ mi. N. of Pensacola Bay

Depth, 1 fath.

Nature of bottom, soft sand & grass

Dredging instrument used, beam trawl dredge

Direction of drift, S. S. W.; distance, $\frac{1}{2}$ mi.

Temperature of air, 75 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0233 temp., 27

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 7450

Barometer reading, 30.04

State of sky, Partly cloudy

Direction of wind, East; force, 4

Rain,

Direction of surface current, : force,

" of bottom " : force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith
Boatswain, U. S. N.

Name and position of observer,

Vernon C. West

NOTES RELATING TO STATION NO. 2074.

Nothing in dredge

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 7475

Date, March 6, 1903

Time of day, 11:50 A.M.; of tide, $\frac{3}{4}$ flood

Locality, Key Biscayne Bay, Fla.

Exact position, $1\frac{3}{4}$ mi. N. x E. of AdamsDepth, $7\frac{1}{2}$ ft

Nature of bottom, Hard s.

Dredging instrument used, Small scraper dredge

Direction of drift, East; distance, 10 mi

Temperature of air, 76 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0230 temp., 25

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 74

Barometer reading, 30.06

State of sky, Partly cloudy

Direction of wind, East; force, 4

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James B. Smith

Boatswain, U. S. N.

Name and position of observer,

Vernon C. Hart.

NOTES RELATING TO STATION NO. 2025

1. fine fine
sandy roof-ers
side-er glive up mgs

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7476

Date, March 6, 1903

Time of day, 1:00 P. M. ; of tide, $\frac{3}{4}$ flood

Locality, Key Biscayne Bay, Fla.

Exact position, 4 mi. E. N. E. of Turkey Point.

Depth, $8\frac{1}{2}$ ft.

Nature of bottom, Hard sand.

Dredging instrument used, Small scrape dredge

Direction of drift, W. N. W. ; distance, 16 mi.

Temperature of air, 76

therm. No.,

" of surface water,

"

" at depth of fathoms,

"

" at bottom,

"

Density at surface, 1.0252

temp., 25-

" at depth of fathoms,

"

" at bottom,

"

Number of salinometer, 7455

Barometer reading, 30.05

State of sky, Partly cloudy

Direction of wind, East ; force, 4

Rain.

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James H. S.
Boatwain, U. S. N.

Name and position of observer,

Vernon H. West.

NOTES RELATING TO STATION NO. 70024

1. Large finger of right
2. spine of about
3. spine of about
envelope.

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. *7427*
 Date, *March 6, 1903*
 Time of day, *1:45 P.M.*; of tide, *High water*
 Locality, *Key Biscayne Bay, Fla.*
 Exact position, *1 1/2 mi. S. W. & W. of Lanch*
Key
 Depth, *10 1/2 ft.*
 Nature of bottom, *Soft sand & green*
 Dredging instrument used, *Small scrape dredge*
 Direction of drift, *N. N. E.*; distance, *1/2 mi.*
 Temperature of air, *76* therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, *1.0232* temp., *25*
 " at depth of fathoms, "
 " at bottom, "
 Number of salinometer, *7450*
 Barometer reading, *30.05*
 State of sky, *Partly Cloudy*
 Direction of wind, *East*; force, *4*
 Rain,
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, *Fish Hawk*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *James A. Smith*
Boatman, U. S. N.
 Name and position of observer,
Vernon E. West

NOTES RELATING TO STATION NO. 2472

1. *afra* 14/10/12

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7478

Date, March 6, 1905

Time of day, 2:15 P. M.; of tide, High water

Locality, Key Biscayne Bay, Fla.

Exact position, $1\frac{1}{4}$ mi. S. of Middle of
Feather-bed Bank

Depth, 9.5 f.

Nature of bottom, Hard sand

Dredging instrument used, Small scrape dredge

Direction of drift, West; distance, $\frac{1}{2}$ mi.

Temperature of air, 76 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0232 temp., 25

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 7450

Barometer reading, 30.03

State of sky, Partly Cloudy

Direction of wind, East; force, 4

Rain,

Direction of surface current, : force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James H. Smith
Boatswain, U. S. N.

Name and position of observer,

Vernon E. Went.

NOTES RELATING TO STATION NO. 2426

small roots

eggshells

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *7458*Date, *March 6, 1902*Time of day, *2:45 P. M.*; of tide, *High water*Locality, *Key Biscayne Bay, Fla.*Exact position, *1/2 mi. N. W. x N. of Lums**Key*Depth, *9 ft.*Nature of bottom, *sand & grass*Dredging instrument used, *Small scrape dredge*Direction of drift, *N. E.*; distance, *1/2 mi.*Temperature of air, *76* therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, *1.0239* temp., *25*

" at depth of fathoms, "

" at bottom, "

Number of salinometer, *7458*Barometer reading, *30.12*State of sky, *Partly cloudy*Direction of wind, *East*; force, *4*

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, *Fish Hawk*Service to which attached, *Fish Commission*Name and rank of commanding officer, *James H. ...**Boatman U. S. N.*

Name and position of observer,

Wm. L. ...

NOTES RELATING TO STATION NO. 7477

small shells.

2 pipe frags

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7800
 Date, March 6, 1903
 Time of day, 4:00 P.M.; of tide, High water
 Locality, Key Biscayne Bay, Fla.
 Exact position, 1 1/2 mi N. N. W. 3/4 N. W. of
 N. point of Duck Key
 Depth, 9 ft.
 Nature of bottom, Hard sand.
 Dredging instrument used, Small scrape dredge
 Direction of drift, East ; distance, 1/2 mi.
 Temperature of air, 75 therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, 1.0234 temp., 25
 " at depth of fathoms, "
 " at bottom, "
 Number of salinometer, 7950
 Barometer reading, 30.02
 State of sky, Partly clear
 Direction of wind, East ; force, 4
 Rain,
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, James A. Smith
 Boston, U. S. N.
 Name and position of observer,
 Vernon E. West.

NOTES RELATING TO STATION NO. 7940

2 shrimps
small brachyura

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 7481
 Date, March 7, 1903
 Time of day, 7:10 A. M.; of tide, $\frac{3}{4}$ ebb.
 Locality, Key Biscayne Bay, Fla.
 Exact position, south of Little Back
 Bank
 Depth, 11 ft.
 Nature of bottom, sand & grass
 Dredging instrument used, Oyster dredge
 Direction of drift, N. W. ; distance, $\frac{1}{2}$ mi.
 Temperature of air, 76 therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, 1.0234 temp., 27
 " at depth of fathoms, "
 " at bottom, "
 Number of salinometer, 7450
 Barometer reading, 30.07
 State of sky, Partly clear
 Direction of wind, E. N. E. ; force, 4
 Rain,
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, James H. Smith
 Boatswain, U. S. N.
 Name and position of observer,
 Vernon C. Wright,

NOTES RELATING TO STATION NO. 7721.

Several bivalves

2 species of nautilus

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 7482

Date, March 7, 1903

Time of day, 7:40 A. M.; of tide, $\frac{3}{4}$ ebb.

Locality, Key Biscayne Bay, Fla.

Exact position, $3\frac{1}{2}$ mi. S. W. & W. $\frac{1}{2}$ W.

of Soldier Key

Depth, $10\frac{1}{2}$ ft.

Nature of bottom, barry.

Dredging instrument used, Cyster dredge

Direction of drift, West; distance, $\frac{1}{2}$ mi.

Temperature of air, 76 therm. No.,

" of surface water, ..

" at depth of fathoms, ..

" at bottom, ..

Density at surface, 1.0236 temp., 27.5

" at depth of fathoms, ..

" at bottom, ..

Number of salinometer, 7450

Barometer reading, 30.04

State of sky, Partly clear

Direction of wind, C. N. E.; force, 4

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith
Boatswain, U. S. N.

Name and position of observer,

Vernon C. Hunt

NOTES RELATING TO STATION NO. 2212

- 2 species of non-commercial sponges
- 1 species of shrimp
- 1 sea anemone
- 1 small holothurian
- 1 file fish
- several limpets
- Hermit crabs
- goats of rocks
- coral

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 7483

Date, March 7, 1903

Time of day, 8:00 A.M.; of tide, $\frac{3}{4}$ ebb

Locality, Key Biscayne Bay, Fla.

Exact position, 3 mi. N. W. of Soldier

Key
Depth, 10 fms

Nature of bottom, sand & grass

Dredging instrument used, Oyster dredge

Direction of drift, West : distance, 1/2 mi.

Temperature of air, 75 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0232 temp., 27

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 7450

Barometer reading, 30.05

State of sky, Partly clear

Direction of wind, E. N. E.; force, 4

Rain,

Direction of surface current, : force,

" of bottom " : force.

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James L. Smith
Boatswain, U. S. N.

Name and position of observer,

Vernon E. Hunt

NOTES RELATING TO STATION NO. 2765.

A. Living in bridge

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *7444*
 Date, *March 7, 1903*
 Time of day, *8:35 A.M.*; of tide, $\frac{3}{4}$ *ebb*
 Locality, *Key Biscayne Bay, Fla.*
 Exact position, *4 $\frac{1}{4}$ mi. S.W. $\frac{1}{2}$ S. of Cape*
Florida.
 Depth, *1 $\frac{1}{2}$ ft.*
 Nature of bottom, *sand & grass*
 Dredging instrument used, *Oyster dredge*
 Direction of drift, *West*; distance, *$\frac{1}{2}$ mi.*
 Temperature of air, *75* therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, *1.0224* temp., *24*
 " at depth of fathoms, "
 " at bottom, "
 Number of salinometer, *7450*
 Barometer reading, *30.05*
 State of sky, *Partly clear*
 Direction of wind, *E. N. E.*; force, *4*
 Rain,
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, *Fish Hawk*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *James B. Smith*
Retired U. S. N.
 Name and position of observer,
Vernon C. Weeks

NOTES RELATING TO STATION NO. 7127.

1. Turin water
little stone
gastropods
several crabs
bivalves

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *7485*
 Date. *March 7, 1905*
 Time of day, *9:10 A.M.*; of tide, *Low water*
 Locality, *Key Biscayne Bay, Fla.*
 Exact position, *3 mi. S.W. & 24. of Cape Florida*
 Depth, *11 1/2 ft.*
 Nature of bottom, *sand & grass*
 Dredging instrument used, *Oyster dredge*
 Direction of drift, *N. W.*; distance, *1/8 mi.*
 Temperature of air, *75* therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, *1.0212* temp., *24*
 " at depth of fathoms, "
 " at bottom, "
 Number of salinometer, *7450*
 Barometer reading, *30.05*
 State of sky, *Partly cloudy*
 Direction of wind, *E. N. E.*; force, *4*
 Rain,
 Direction of surface current, : force,
 " of bottom " : force,
 Name of vessel, *Fish Hawk*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *James A. Smith*
Boatswain, U. S. N.
 Name and position of observer,
Vernon C. West.

NOTES RELATING TO STATION NO. 2485

little water
in the pool
gastropods
small etc

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7486
 Date, March 7, 1902
 Time of day, 9:30 A. M. of tide, Low water
 Locality, Key Biscayne Bay, Fla.
 Exact position, 3 mi. N. & S. of Cape
 Florida
 Depth, 10 1/2 ft.
 Nature of bottom, sand & grass
 Dredging instrument used, Oyster dredge
 Direction of drift, N. W. ; distance, 1/2 mi.
 Temperature of air, 75 therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, 1.0213 temp., 24
 " at depth of fathoms, "
 " at bottom, "
 Number of salinometer, 7450
 Barometer reading, 30.06
 State of sky, Partly cloudy
 Direction of wind, S. W. E.; force, 4
 Rain,
 Direction of surface current, : force,
 " of bottom " : force,
 Name of vessel, Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, James A. Smith
 Boutwell, U. S. N.
 Name and position of observer,
 Vernon L. Smith

NOTES RELATING TO STATION NO. 2486

brakes

gate posts

small pile posts

rust marks

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7427

Date, March 10, 1903

Time of day, 7.25 A. M.; of tide, $\frac{3}{4}$ ebb.

Locality, Key Biscayne Bay, Fla.

Exact position, 1 mi. W. of Leather
neck Banks.

Depth, $11\frac{1}{2}$ ft

Nature of bottom, Bay

Dredging instrument used, Small scrape dredge

Direction of drift, S. W. ; distance, $\frac{1}{6}$ mi.

Temperature of air, 74 therm. No.,

" of surface water,

" at depth of fathoms,

" at bottom,

Density at surface, 1.0231 temp., 23

" at depth of fathoms,

" at bottom,

Number of salinometer, 7450

Barometer reading, 30.06

State of sky, Partly cloudy

Direction of wind, East ; force, 4

Rain,

Direction of surface current, : force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith

Master, U.S.N.

Name and position of observer,

Wm. E. West

NOTES RELATING TO STATION NO. 2447

a small hermit crab

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. *7488*
 Date, *March 10, 1903*
 Time of day, *7.22 A. M.*; of tide *$\frac{3}{4}$ ebb*
 Locality, *Roseau Bay, Lake Superior*
 Exact position, *2 mi. S. W. of S. E. end of Featherbed Bank.*
 Depth, *7 $\frac{1}{2}$ ft.*
 Nature of bottom, *Sand*
 Dredging instrument used, *Small scrape dredge*
 Direction of drift, *West*; distance, *$\frac{1}{2}$ mi.*
 Temperature of air, *77* therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, *1.0230* temp., *23*
 " at depth of fathoms, "
 " at bottom, "
 Number of salinometer, *7450*
 Barometer reading, *30.16*
 State of sky, *Partly cloudy*
 Direction of wind, *East*; force, *4*
 Rain,
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, *Fish Hawk*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *James A. Smith*
Boatwain, U. S. N.
 Name and position of observer, *Vernon E. West*

NOTES RELATING TO STATION NO. 2208

2 small long-handled sponges
in abs

1 pipe fish

1 worm

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7449

Date, March 10, 1903

Time of day, 8:25 A. M.: of tide, $\frac{3}{4}$ ebb.

Locality, Billies Lake, Biscayne Bay, Fla.

Exact position, $\frac{1}{2}$ m. N. E. of Turkey Point.

Depth, 8 ft.

Nature of bottom, Hard sand

Dredging instrument used, Dredge

Direction of drift, West : distance, 1 m.

Temperature of air, 74 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0247 temp., 25

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 7450

Barometer reading, 30.10

State of sky, Partly cloudy

Direction of wind, East ; force, 1

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith
Retiree, U. S. N.

Name and position of observer,

Vernon C. West

NOTES RELATING TO STATION NO. 2409

Nothing in dredge

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. *7490*
 Date. *March 10, 1923*
 Time of day, *8:45 A. M.*; of tide, *$\frac{3}{4}$ ebb.*
 Locality, *Cutters Banks, Casapue Bay, Fla.*
 Exact position, *2 1/2 mi. E. S. E. of Turkey Point*
 Depth, *7 ft.*
 Nature of bottom, *Sand*
 Dredging instrument used, *Small scrape dredge*
 Direction of drift, *West*; distance, *1/2 mi.*
 Temperature of air, *74* therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, *1.0246* temp., *23*
 " at depth of fathoms, "
 " at bottom, "
 Number of salinometer, *7450*
 Barometer reading. *30.10*
 State of sky, *Partly cloudy*
 Direction of wind, *East*; force, *4*
 Rain,
 Direction of surface current, : force,
 " of bottom " : force,
 Name of vessel, *Fish Hawk*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *James A. Smith*
 Boatswain, U. S. N.
 Name and position of observer,
 Vernon C. West.

NOTES RELATING TO STATION NO. 2421

small sub.

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 7491

Date, March 10, 1903.

Time of day, 10:35 A. M. of tide $\frac{3}{4}$ ebb.

Locality, Card Sound, Fla.

Exact position, 1 mi. N. x E. $\frac{1}{2}$ E. of Pumpkin
Keyland.Depth, 10 $\frac{1}{2}$ ft.

Nature of bottom, Hard sand

Dredging instrument used, Small scrape dredge

Direction of drift, West ; distance, 1/2 mi

Temperature of air, 75 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0222 temp., 27

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 7450

Barometer reading, 30.12

State of sky, Partly cloudy

Direction of wind, East ; force, 4

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith
Boatswain, U. S. N.

Name and position of observer,

Herman C. Pratt

NOTES RELATING TO STATION NO. 7881

Nothing in dredge.

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *7492*
 Date, *March 10, 1903*
 Time of day, *11:00 A. M.*; of tide, *$\frac{3}{4}$ ebb.*
 Locality, *Cand Sound, Fla.*
 Exact position, *1 $\frac{1}{2}$ mi. S. W. $\frac{1}{2}$ W. of Pimpton Key*
 Depth, *11 $\frac{1}{2}$ ft*
 Nature of bottom, *Soft sand & grass*
 Dredging instrument used, *Small snuff dredge*
 Direction of drift, *West*; distance, *16 mi.*
 Temperature of air, *75* therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, *1.0222* temp., *24*
 " at depth of fathoms, "
 " at bottom, "
 Number of salinometer, *7450*
 Barometer reading, *30.12*
 State of sky, *Partly clear.*
 Direction of wind, *East*; force, *4*
 Rain,
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, *Fish Hawk*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *James A. Smith*
Boatsman, U. S. N.
 Name and position of observer,
Vernon E. West.

NOTES RELATING TO STATION NO. 7742

2 herring
1 large fish
1 small fish

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 7493

Date, March 18, 1903

Time of day, 11:10 A. M.; of tide Low water

Locality, Card Sound, Fla.

Exact position, 1 1/2 mi. N. of Pumpkin Key.

Depth, 10 ft

Nature of bottom, Barry

Dredging instrument used, Small scrape dredge

Direction of drift, West ; distance, 1/6 mi.

Temperature of air, 75 therm. No.,

" of surface water, ..

" at depth of fathoms, ..

" at bottom, ..

Density at surface, 1.0232 temp., 24

" at depth of fathoms, ..

" at bottom, ..

Number of salinometer, 7450

Barometer reading, 30.12

State of sky, Partly cloudy

Direction of wind, East ; force, 4

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith

Boatswain, U. S. N.

Name and position of observer,

Vernon E. West.

NOTES RELATING TO STATION NO. 742

- 3 species of sponges
- 2 urchins
- several species of crabs
- 1 pipe fish
- 2 species of shrimp
- 1 worm

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 7494

Date, March 12, 1903

Time of day, 9:20 A.M.; of tide, $\frac{1}{2}$ ebb

Locality, Hawk Channel

Exact position, $\frac{1}{2}$ mi. N. E. x E. of Southern end of Sands Key.

Depth, 9 ft.

Nature of bottom, Hard sand & grass

Dredging instrument used, small scrape dredge

Direction of drift, East ; distance, $\frac{1}{6}$ mi.

Temperature of air, 73 therm. No.,

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0252 temp., 23

" at depth of fathoms, "

" at bottom, "

Number of salinometer, 7400

Barometer reading, 30.01

State of sky, Partly cloudy

Direction of wind, E. N. E.; force, 4

Rain,

Direction of surface current, ; force,

" of bottom " ; force,

Name of vessel, Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, James A. Smith
Boatswain, U. S. N.

Name and position of observer,

Vernon C. West.

NOTES RELATING TO STATION NO. 7494

1 sand dollar

3 species of non-commercial sponge

2 univalves

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. *7495-*
 Date, *March 12, 1903*
 Time of day, *9:40 A.M.*; of tide, *1/2 ebb.*
 Locality, *Hawk Channel, Fla.*
 Exact position, *1/8 mi. E. x N. of Lothern Ragged Key.*
 Depth, *12 1/2 ft*
 Nature of bottom, *Hard sand.*
 Dredging instrument used, *Small scrape dredge.*
 Direction of drift, *East*; distance, *1/6 mi.*
 Temperature of air, *73* therm. No.,
 " of surface water, " "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, *1.0250* temp., *23*
 " at depth of fathoms, "
 " at bottom, "
 Number of salinometer, *7450*
 Barometer reading, *30.01*
 State of sky, *Partly cloudy*
 Direction of wind, *E. N. E.*; force, *4*
 Rain,
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, *Fish Hawk*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *James A. Smith*
 Boatswain, U. S. N.
 Name and position of observer,
 Vernon E. West.

NOTES RELATING TO STATION NO. 7495

Nothing in dredge